



Radioactive Iodine Treatment **for** Hyperthyroidism

WHAT IS HYPERTHYROIDISM?

The thyroid gland, located at the front of your neck, makes hormones that control your metabolism—the way your body uses energy. Hyperthyroidism, also called overactive thyroid, occurs when your thyroid gland makes too much thyroid hormone. Too much thyroid hormone speeds up many of the body's functions. If untreated, an overactive thyroid can lead to other health concerns, such as heart problems.

The main cause of hyperthyroidism is Graves' disease, in which the immune system attacks the thyroid. Less often, hyperthyroidism occurs when the thyroid has one or more nodules (lumps) that make too much thyroid hormone.

DID YOU KNOW?

Radioactive iodine is a generally safe treatment that can cure hyperthyroidism (overactive thyroid gland).

WHAT IS THE TREATMENT OF HYPERTHYROIDISM?

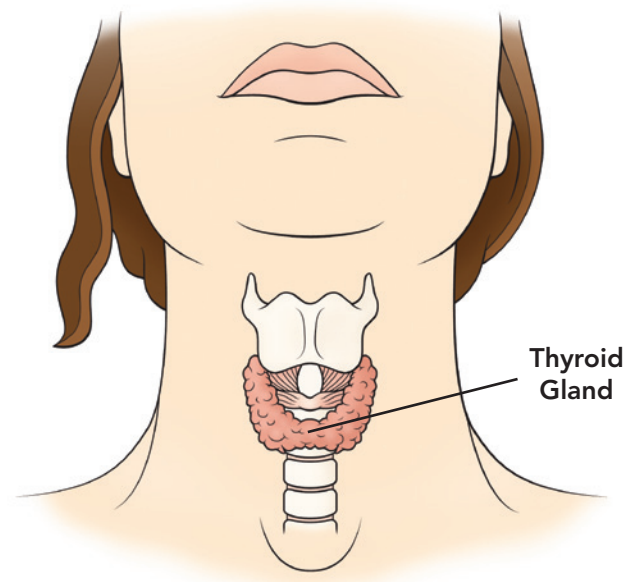
The goal of treatment is to lower the amount of thyroid hormones. Treatment options include

- **Radioactive iodine (RAI).** Also called radioiodine, RAI is a common and long-used treatment for hyperthyroidism.
- **Surgery.** This removes the thyroid gland (called thyroidectomy).

- **Antithyroid drugs.** These medicines are given for months or even years. Sometimes people take them to prepare for RAI or surgery.

HOW DOES RADIOACTIVE IODINE TREATMENT WORK?

Iodine is important for making thyroid hormones. Just as the thyroid naturally collects iodine from the foods we eat, it does the same with RAI. Because RAI has a small amount of radiation, it destroys thyroid cells. Afterward, the gland no longer makes as much thyroid hormone. RAI rarely affects other parts of the body.



RAI, also called iodine 131 (I-131), is given as a single-dose capsule or liquid. Most often, you will not need a hospital stay. It can take 6 to 18 weeks or more to get the full effects of RAI treatment. During this time, you may need antithyroid drugs.

WHO SHOULD NOT USE RAI?

For safety reasons, these people should not get RAI treatment:

- Pregnant and breastfeeding women or those planning to become pregnant in the next six months
- People who cannot follow radiation safety precautions
- Young children who haven't tried other treatment options first
- Some people with active Graves' ophthalmopathy (thyroid eye disease)

CAN I HAVE RAI TREATMENT IF I AM ALLERGIC TO SHELLFISH?

It is a myth that people who are allergic to shellfish will have an allergic reaction to a small dose of iodine. Even among people who are allergic to the radiocontrast dye in some imaging tests, most are not allergic to RAI.

HOW SHOULD I PREPARE FOR RAI?

If you are taking antithyroid drugs, stop them five to seven days before treatment. Do not stop taking beta blockers (drugs such as atenolol) if your doctor has prescribed them.

Avoid drugs and foods that are high in iodine for as long as your doctor instructs. Foods high in iodine include iodized salt, seaweed and other seafood, and dairy products. Multivitamins often contain iodine, so check the labels.

Some radiation stays in your body for a few days after RAI treatment. Your health care provider will give you a list of precautions to take after treatment to minimize others' exposure to the radiation.

Follow these safety measures after RAI treatment:

- Sleep in a separate bed (more than six feet away) from other adults for three or more days after treatment. Sleep apart from children and pregnant women for two weeks or longer.
- In daytime, keep more than six feet away from children and pregnant women for at least one day.
- Avoid prolonged time in public places or transportation (planes, trains, buses) for at least three days. Do *not* stay in a hotel or motel right after treatment.

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The Hormone Health Network offers free, online resources based on the most advanced clinical and scientific knowledge from The Endocrine Society (www.endo-society.org). The Network's goal is to move patients from educated to engaged, from informed to active partners in their health care. This fact sheet is also available in Spanish at www.hormone.org/Spanish.

Radioactive Iodine Treatment for Hyperthyroidism Fact Sheet

WHAT ARE THE SIDE EFFECTS OF RAI?

RAI is generally safe. Sometimes neck pain can result. Yet, this does not last long, and pain medicine can help relieve the discomfort.

Most people will have hypothyroidism (underactive thyroid) after treatment. This shortage of thyroid hormones may be temporary but often is lifelong. It is easily treated, though, with synthetic (manmade) thyroid hormone.

The risk of thyroid cancer does not seem to increase in patients who receive RAI.

IS RAI TREATMENT A CURE?

In most patients, the first RAI treatment cures hyperthyroidism. Some, however, will need a second RAI treatment.

Questions to ask your doctor

- What are the pros and cons of RAI compared with other treatments?
- How long should I stay on a low-iodine diet before RAI treatment?
- What side effects will I have?
- When may I return to work after RAI treatment?
- After treatment, how long should I avoid close contact with my family members and pets?

RESOURCES

- Find-an-Endocrinologist: www.hormone.org or call 1-800-HORMONE (1-800-467-6663)
- Hormone Foundation information about hyperthyroidism: www.hormone.org (search for hyperthyroidism)
- National Endocrine and Metabolic Diseases Information Service (National Institutes of Health): www.endocrine.niddk.nih.gov
- American Thyroid Association: www.thyroid.org/patients



www.hormone.org